



SEQUENCE LISTING

RECEIVED

APR 19 2002

TECH CENTER 1600/2900

A1
<110> Solari, Augusto Inventi
Zanuso, Giovanna
Filippini, Silvia
Torti, Francesca
Otten, Sharee
Colombo, Anna Luisa
Hutchinson, Charles R

<120> PROCESS FOR PREPARING DOXORUBICIN

<130> 101615-00009

<140> US 09/673,254

<141> 2000-12-06

<150> PCT/US99/07016

<151> 1999-04-22

<150> US 09/065,606

<151> 1998-04-24

<160> 1

<170> PatentIn version 3.1

<210> 1

<211> 2870

<212> DNA

<213> Streptomyces peucetius

41

<400> 1
 ggatccgcac cgggtacacg gcacgggacc gccaccgcg cgggtgcgcg tgggcgggtcc 60
 cgtgccggtc gcggccggcg gatcagcgca gccagacggg cagttcgggtg agccgcgccg 120
 tctgggcccc cttccggcac caccgcaact cgtcgtacgg cacggccagt cgggcctcgg 180
 ggaacctgct gcgcagtagc ccgatcatcg tgcgcgactc cagctgggcg agctgctccc 240
 cgatgcagta gtgcggcccc tcgccgaagg tgagccgccg ccacgaggga cgggtccgggt 300
 ggaaggcggtg cggggcgctg tgatggcggc cgtcgggtgtt ggtgccctcg atgtccacca 360
 gcaccggcg ctcgcggggc agccggacgc cgccgatgggt cacctccgtg gcagcgaacc 420
 tccacaacgt gtagggcacc ggcgggtgggt agcgcagcgc ctctccacg aaccgggaga 480
 cggcgctctc gtcggcatcc gccgcgaggc ggcccgccag gacctccgcg agcaggaagc 540
 ccaggaagga gccgggtggtg tcgtggccgg cgaagatgag cccgggtgatc atgtagacga 600
 gctggtcgtc ggagaccgag ccgaactcgg cctgcgcgcg ctctacagc acgcgggtca 660
 tggtcgggggt gtcgttccgc cgggctgagt gcacggcttc gaggagcagg ctctccaggg 720
 ccgaggtgtc cggcacgccc ccggcagggt ccgtgccgtc acccccgccg ctctgcgggc 780
 cgccgaggcc gagtgccttg agaacgctga cggcctcgcg ggccatcgcc ggatcgggtga 840
 ccggcacacc gagcagctcg cagatgacca acagcgggaa gtggtacgcg aagccgccga 900
 tcagctcggc cggtttgccc gaccggccgg aggcgtcggc gagttcgggtg agcagccggc 960
 cggcgatcgc ggcgatgcga tccgtccgct cggccagccg gcgcgggttg aacgcagggtg 1020
 cgtggatgcg gcgcaggcgc cgggtgggct cggcgtccac ggcgatgagc gtgaacggac 1080
 gcagctccgg aacggggatg tcgagaccgt cgtccacccc ccgccaggcg gcgggggcca 1140
 ggtcggggtc cttcacgaac cggggatcgg ccagcacctc gcgggcgagg gcgtcatcgg 1200
 tgatgaccca ggcgggtccg cccgcggggg cgttcacctc gacgaccggg cccgcctccc 1260
 ggaaggcgct gtgcacctcg ggcttgcgct gcatgggtcat catgggacac gcgaacgggt 1320
 cgacggccac ccggggcgcc tcgccgtca cgaggcaccg cccgccgccg cggggtaccc 1380
 ctcccgcagt tcgaccaccg agaagccggc cccgtgcggg tcgagcagggt ccgcccgccg 1440
 ccccctgggc gtgtcggcg gctcgttctc gacggagccg ccgagttcaa cggcgcgccg 1500
 gaccgtcgcg tcgcagtcgt gcacggcgaa cagcacggcc cagtgcggcc gtaccgcgcc 1560
 ggtgacgccc agtccttggg tgccggcgac cgggtgtgtca ccgatgtgcc agaccgggtc 1620
 ggtgacgccc ttcagtccgg tgctggccgg agccaggccg agggtcgccg ggtagaagtc 1680
 ccgggcggcc ccgatgccgt cggtcaccag ctcgaccag ccgaccgagc cgggcacgcc 1740
 cgtcacctcc gcgccctcca tgactccctt gcgccagacc gcgaacgcgg ccccgggcggg 1800
 gtcggcgaag accgccatcc ggccgaggcc gaggacgtcc atcggagtca tgatgacctc 1860
 gccgcccgcc gtctcgacct gcttggtcag tgcgtcggcg tcgtcgggtg cgaagtacac 1920

ggtccagatg gccggcatgc cgtgctggtc gttcccgggc ccgtacggcc ggtggtaggg 1980
 ggtgtcgatc tgggtggcggg cgaccgggc gaccagcttc ccgtcggagc tgaacgtcgt 2040
 gtatcccccg gcgcccgggt cgctgaccac ggtggcggtc cagccgaaca ggccggtgta 2100
 gaagtcggcc gaggcggcga catcgggcga accgaggtcg aaccatgcgg gggcgccggg 2160
 cgcgaacctg gtcacgaatc gttcctttcg atggatcggc acacgagcgt ctgcgctcgc 2220
 ggatgagacg gacatctcgc ggatgagacg gacatgcggg cggggcgggc cgccgccgtc 2280
 agtgcgcggg gtcgccgacg gcggccgcgc cggcctccca gagcttcgcc gcgaggccgg 2340
 cgtcggcggg cgggccgctc accggggaca gccgccggtc gctgtagtag ccgcccgtag 2400
 tcaactcctc ggccggcgcg gacgccagcc acacgagggg gtcggcgccc ttcgccgcgg 2460
 agcgcaggaa ggggttgaac cggaagtagg acgaggcgac cgtgccccgt ccgatgcggg 2520
 tgcggacctc accgggggtga tagctgaccg ccagcacgtc cggccagcgc ctggcggcct 2580
 ccgccgcggg catgatgttg gcctgtttgg acgtgccgta cgcctggccg gcgctgtagc 2640
 ggtgacggtc gccgttgagg tcgtccgggt cgatccggcc ctgggtgtac gcgtcggacg 2700
 aggtgaggat cagccgcccg cccgcgagcc gctcccgcag cagccgtgcc agcaggaagc 2760
 ctgcgaggtg attgacctg atggtggcct cgaaccgctc ctgggtcgtg gtgcgcgacc 2820
 agaacatgcc gccggcggtg ctggccatga catcgatgcg cgggtaccgg 2870
